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ABSTRACT

Reviews of use studies of online systems at academic libraries support the need for aggressive public relations techniques to increase usage. An examination of user needs reveals the existence of a potential market of users that can substantially benefit from online services, but, so far, has not been reached by the libraries that supply these services. Five tables of survey data are included. (RAA)

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WHO NEEDS IT?

IS LITERATURE SEARCHING FOR EVERYONE?

by

Kathryn Forrest

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WHO NEEDS IT? IS LITERATURE SEARCHING FOR EVERYONE?

Recent writers have concerned themselves with user evaluations of computer retrieval services and with the methods of evaluating those systems available to them through purchase or lease. This is understandable, since user satisfaction with any new service is important to its growth and funding. Five years ago I readily accepted the hypothesis that the quality of information must be acceptable and that the retrieval methods must be accurate, quickly available, and inexpensive. It is also essential that the needs of the users be determined, since the success of any library program should be judged in relation to user satisfaction. These points had become all too clear during my initiation with SDI services during the late 1960's at the University of California.

There have been many articles and books written on planning and start-up of online services, but very few have concerned themselves to any great degree with an assessment of user interest, requirements and willingness to participate in such a local undertaking. After reading literally hundreds of articles on data base systems and user needs, I still found myself mentally wrestling with these two gnawing, unanswered questions. 1). How interested is our clientele in information retrieval systems? And, 2). How much do they know about content and availability of data bases? I kept returning to articles on journal use, particularly in the sciences with which I was familiar, and found that a very small portion of the periodicals libraries subscribe to regularly are used by their faculty and students. I found this true in a study I conducted at San Jose State University prior to a weeding and cancelation

project a few years ago. A study completed in England by Panton and Reubens provided more validity when they showed that only 19% of the journals subscribed to by the University of Surrey were even cited once during the decade studied. This phenomenon had been evident in many of the libraries for whom I had worked and repeated consistantly across this country. It not only held true for the science department faculties, but other department faculties as well. Will these faculties and students make better use of library materials using a new method of literature searching to maintain and become more proficient in their fields than they now do using the traditional methods of literature searching? This, then, is what I set out to discover for one of the largest college and university systems in the country.

In 1975 questionnaires were sent to all faculty on 19 campuses with a 15% return. Eight of the 19 campuses representing those with the longest experience with data base service or which represented large, medium and small size institutions were selected for inclusion in the 1980 study. Questionnaires were sent to a 30% random sample of each department faculty on the eight campuses selected. In 1975 the response from those eight campus facilities was 15.6%, while 31% of the faculty responded in 1980.

As we all know, computing now plays a critical role in most academic institutions and corporations. Timeshare and information brokers have made computing available even to small institutions and companies. In academic institutions the computer print-out is an intricate part of enrollment, registration and grading procedures. It only follows that we expect knowledgable users among our patrons. It was obvious from the replies that the majority of faculty was interested in learning more about available computerized

information. The 1980 survey showed a greater sophistication in generalized computer terminology, but a frightening 70% were relatively uninformed about searching techniques or knowledge of data base availability. This in spite of the increasing number of data bases available and a relatively large advertising campaign by both producers and brokers. Table I shows that only 17 data bases were offered for faculty consideration in 1975, which represented the major coverage available to them at that time. Only 24.6% of the responding faculty had used a data base. It must be remembered, however, that at this time most of the eight libraries were supplying largely science faculty with a limited SDI service through an outside vendor. Some faculty members were going direct to producers such as the Institute for Scientific Information with its ASKA II program (now Scisearch) while others were using substantive data bases supplied to the teaching faculty through the computer centers on campus.

Five years later a selection of 70 data bases were offered for faculty consideration which represented less than two-thirds of those available for purchase or lease. It did, however, make up the majority of the data bases the campus libraries were able to supply to their users at that time. The percent of faculty using the service grew to 40.8%. Clearly a primary responsibility of information specialists must be a more agressive public relations program as well as a greater push toward instruction in subject availability, search methods and techniques. Even though the libraries offered 412% increase in available data bases they drew only 16.2% more users. This represents only 3.24% increase in users per year. Our public relations program must be geared toward individual faculty members, classroom lectures and departmental faculty meetings as well as a strong adver-

tising program for students.

It proved interesting that six of the ten most searched files in 1980 were on the top ten list in 1975 even though 53 more titles were available to the respondents. Table II shows the selection of top ten files used in 1975 as compared to the top ten files used in 1980. Three substantive data bases were among the top ten files used in 1975 and all had dropped from the list by 1980. The faculty was obviously better informed regarding the availability of substantive data bases which were offered through the computer centers than they were about bibliographic files available in their fields. The largest use in both years was with the ERIC file which is probably due to the cross-disciplinary nature of the file and the familiarity many faculty members had with microfische and hard copy sets. Out of the seventy data bases offered in 1980 only one new one made the top ten list. Even though the percentage of faculty members using their library for their computerized information retrieval needs did not increase in 1980, 35.3% of the respondents had used the assistance of a librarian and the user satisfaction grew by 57.8%. It becomes apparent that the libraries were doing a commendable job of serving their public once they made them aware of the services the library had to offer. The average respondent used 2.4 files in 1980, up from the 1.3 averaged in 1975.

One questions if the libraries some how dropped the ball in training their clients when we compare the top ten files used in 1980 as shown in Table II, with the files the faculty thought would be most useful to them and the list they indicated they would like more instruction in as indicated in Table III.

Four of these titles did not appear on the 1980 list, but all but one had been used in 1975. Did the faculty find them to be less useful than they expected? Were they more comfortable with the files they had been using or have they not received the required information about and instruction in new data bases available? Perhaps they have just been too busy to take advantage of the library service and training. The answers to these questions will vary from institution to institution and department to department. I am convinced that to some extent they have not been kept informed. The majority of the 1980 respondents kept the annotated list of data bases I had prepared and mailed as part of the questionnaire and many took the time to write a note thanking me for the list and saying they had no idea so many data bases were available in their field or that a specific index they used regularly had been computerized.

Several notes from faculty members, however, indicated they were still hesitant to accept the new approach to information, some under the guise of diluting education by reducing the amount of leg work necessary for the student in finding citations for themselves. I certainly agree that our students must know how to use a library and the indexes available, but once that training has been done, I personnally would rather see the educational emphasis placed on reading more articles, reports and reviews than upon the ability to find and list citations. This reluctance was evident not only in remarks added to the questionaires, but in the minimal 5.3% increase in those faculty members who used data bases in their teaching (from 15% to 20.3%), while those who used computerized searching for their own research increased from 23% to 37.1%. Only 19.8% of the faculty required, or even suggested, that their students use

computerized literature searching. Only slightly more than half, 59.5%, of the faculty were even aware that the libraries offered this service. A few die-hards insisted that all computer searching regardless of content or format should remain in the computer centers and not be the responsibility of librarians or information specialists.

To determine a better understanding of faculty needs lets turn our attention to Table IV which indicates computerized literature needs by teaching areas as compared to actual use by instructional assignment for both 1975 and 1980 surveys. The first column shows my categorising of teaching assignments. The second column for each year indicates the percent of responding faculty designating that subject area as their primary teaching assignment. Column three gives the number of data bases available to the faculty in each subject area and column four lists the percent of responding faculty actually using the available data bases in each subject area as compared to the respondents indication of the subject fields they thought would be most useful to them as shown in column five for 1975. It is an interesting study. Look, for example, at Education, No. IX. In 1975, 16.6% of the respondents were from that teaching area and only one data base was available, that was ERIC. 40.2% of data base users were using the ERIC file while 40.8% of the total respondents indicated that ERIC was perhaps the most useful file for them of the 17 listed in 1975. In 1980, however, 15% of the respondents were from Education and six files were now available. Use of education files did increase to 65.6% of the users, but the majority were still using only one data base, ERIC.

The cross disciplinary use of the data bases is evident in fields such as Medicine and Health Sciences where 48.9% are using data bases in a field where

only 10.9% of the faculty are teaching.

The Business Departments showed the greatest interest in learning more about available data bases followed closely by the Education faculty. Table V gives the top ten departments in order of interest and for me held a few surprises, such as the Physical Education faculty ranking sixth. I knew they used medical literature, but I had not anticipated that level of interest. For the survey I had included Psychology with the Health Sciences, but I had not expected Speech Communication to be the only other Social Science Department to hit the top ten. I would have anticipated more interest from the Humanities Departments, since notes indicated a definite desire to have more of their indexes computerized.

Literature searching. Who needs it? That is up to us. Apparently a portion of all our clientel, at some time or other, requires a search of the literature. As a reminder, Table VI indicates the obvious extent of the potential market for the campuses studied. The method for reaching that market is a learned skill which most of us have not been taught. It is necessary to reach that 69% who did not reply to the questionnaire. Why did they not respond? What are the reasons given by 40.8% of the respondents who hav never used a data base? How could it be that 40.5% of the respondents didn't know the service was available on their campus? And lastly, why are only 37% using computerized searching in their own research and only 20.3% using the service in their teaching? I don't think these faculties are very different from other faculties at other institutions.

I believe it is time to put aggressive public relations techniques into action. I have made a beginning at a marketing research study for the eight campuses of

our system. I know there are potential clients and the approximate size of the potential market. I know who they are and something about their needs. Each institution should continue the process by asking:

Am I offering the kind of services my clients need?

Is it a well organized, cost-effective operation and is the value received consistant with the price?

Are my prices and turn-around time consistant with the market?

Am I offering enough training programs and are clients clammering to attend?

Just how do my clients feel about the service? What kind of feedback am I getting?

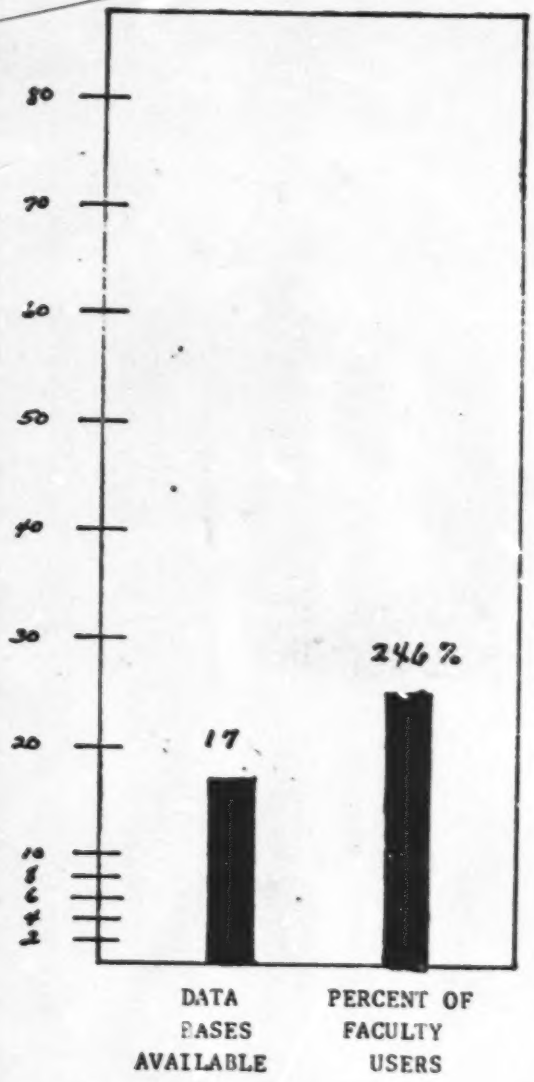
What is the image of the library as a whole on our campus?

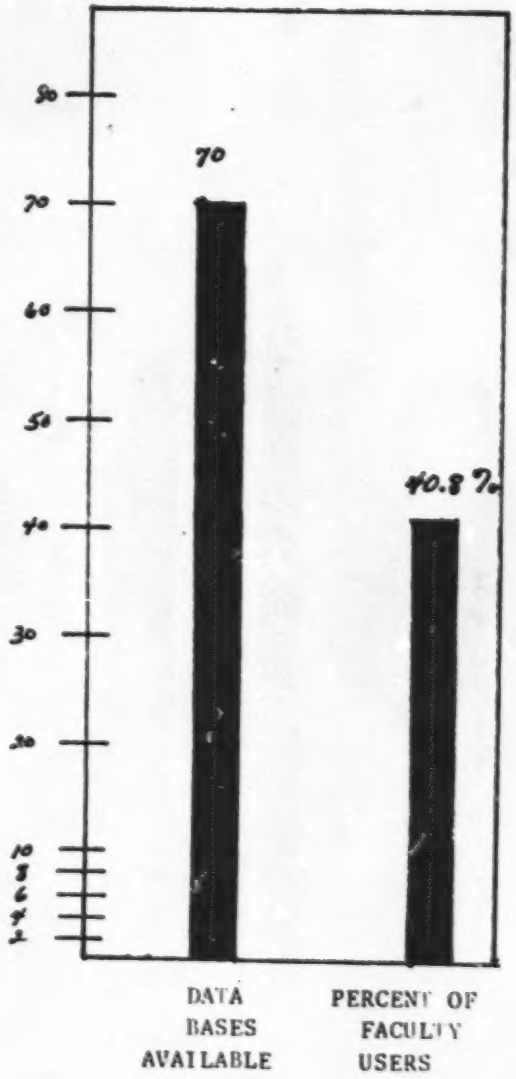
Am I accepting critism constructively, or am I making excuses for why clients are not using the services available?

When these questions have been answered, it is time to adopt marketing research techniques to test your answere against the responses of your clients. In addition, beef up your public relations approach and improve the image by proving your capabilities as information specialists. Sell yourself and your product. I urge each of you to begin a market research study of your own institution or company so that you will know for sure who needs it.

Kathryn Forrest
Online '80
Sept. 19, 1980

TABLE I
USE VS AVAILABILITY





412 % increase in availability

16.2 % increase in users
or
3.24 % increase in users per year

7.2 % decrease in faculty size during 5 yr. period

TABLE II
TOP TEN FILES SEARCHED

	1975	1980
1.	ERIC	ERIC
2.	MEDLINE	PSYCHOLOGICAL ABSTRACTS
3.	PSYCHOLOGICAL ABSTRACTS	MEDLINE
+ 4.	ICPSR	BIOSIS
+ 5.	U S CENSUS TAPES	SOCIOLOGICAL ABSTRACTS
6.	BIOSIS	CHEMICAL ABSTRACTS
7.	NTIS	SOCIAL SCIENCE CITATION INDEX
+ 8.	COMPUSTAT	AGRICOLA
9.	SOCIAL SCIENCE CITATION INDEX	* 9. MODERN LANG. ASSOC. BIBLIOGRAPHY
10.	CHEMICAL ABSTRACTS	SCIENCE CITATION INDEX

+ Substantive Data Bases

* MLA BIBLIOGRAPHY is the only data base which was not available in 1975 which made the top ten list in 1980.

TABLE III
1975 INDICATION OF FACULTY INTEREST

Data Bases the Faculty Think Would Be Most Useful to Them.	Data Bases the Faculty Would Like More Instruction in Content and Use.
1. ERIC	1. PSYCHOLOGY ABSTRACTS
2. PSYCHOLOGY ABSTRACTS	2. ERIC
3. U.S CENSUS TAPES	3. U.S CENSUS TAPES
4. NTIS	4. NTIS
5. SCIENCE CITATION INDEX	5. SOCIAL SCIENCE CITATION INDEX
6. SOCIAL SCIENCE CITATION INDEX	6. SCIENCE CITATION INDEX
7. BIOSIS	7. BIOSIS
8. MEDLINE	8. AB/INFORM
9. AB/INFORM	9. MEDLINE
10. ICPSR	10. ICPSR

TABLE IV

Percent of Respondents by Teaching Subject Assignment - Compared to Actual Use and Anticipated Needs

	1975				1980			
SUBJECT CATAGORIES TSA	% OF TSA RESPONDING	# OF DATA BASES AVAILABLE	% ACTUALLY USING FILES IN SUBJ. AREA	RESPOND. CONSIDER MOST USEFUL	TSA	% OF TSA RESPONDING	# OF DATA BASES AVAILABLE	% ACTUALLY USING FILES IN SUBJ.AREA
I.Agri.& Food Sci.	1.4%	1	1.2%	8.8%	I.	2.3%	5	9.7%
II.Business	9.5	4	9.4	26.7	II.	7.7	8	11.5
III.Medicine & Health	10.1	2	28.0	47.6	III.	10.9	7	48.9
IV.Multidisciplinary	5.0	1	6.3	23.9	IV.	3.9	7	20.3
V. Science	17.1	4	16.9	50.5	V.	19.6	14	30.4
VI. Engineering	3.1	1	1.6	7.4	VI	2.3	6	5.7
VII.Social Science	18.8	3	26.4	55.1	VII.	18.4	13	33.0
VIII. Humanities	18.5	0			VIII.	20.1	6	15.9
IX. Education	16.6	1	40.2	40.8	IX.	15.0	6	65.6
	75.4% had never used a data base 24.6% averaged 1.3 files each 16.4% didn't think any file would be useful to them.					59.2% had never used a data base 40.8% averaged 2.4 files each		

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TABLE V

Departments by Order of Interest Shown

1. Business
2. Education
3. Biological Science
4. Psychology
5. Library/Information Science
6. Physical Education
7. Chemistry
8. Nursing/Health Sciences
9. Speech Communication
10. Engineering

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TABLE VI

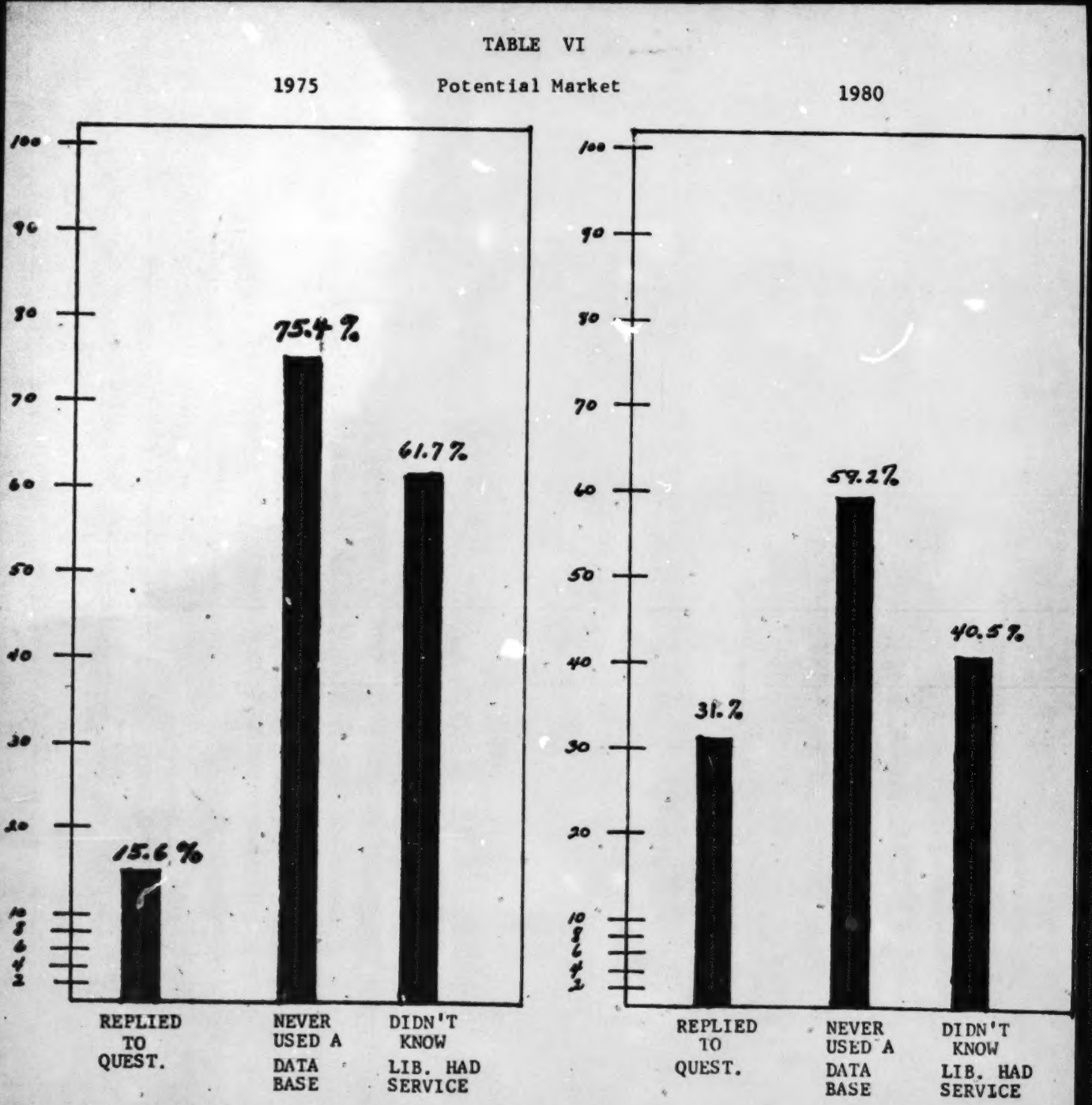

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TABLE VII

DATA BASES BY SUBJECT AREA
Used in 1975 & 1980 Studies

Divisions	1975	Data Bases	1980
I. AGRICULTURAL & FOOD SCIENCE	X	Agricola/Cain	X
Agriculture		CAB Abstracts	X
Natural Resources		CRIS	X
Forestry		Food Adlibra	X
Home Economics (¼ of total)		FSTA	X
Landscape Architecture			
II. BUSINESS	X	AB/Inform	X
Accounting		Disclosure	X
Business Admin.		IDMS	X
Finance	X	Compustat	X
Management	X	IMF	X
Real Estate/Invest.		Management Contents	X
Public Admin.		PNI	X
Recreation Admin.	X	Predicasts	X
III. MEDICINE & HEALTH SCIENCE	X	PASAR/Psych.Abst.	X
Dietetics		Alcohol Use/Abuse	X
Gerontology		Druginfo	X
Nursing		Excerpta Medica	X
Public Health Admin.	X	Medline	X
Occupational Therapy		Medoc	X
Psychology			
Home Economics (½ of total)			
IV. MULTIDISCIPLINARY			
General information		CDA	X
Grant & Foundation information		Conf.Papers Index	X
Special Majors		Foundation Directory	X
Police Science		Foundation Grants Index	X
Physical Education		Magazine Index	X
		National Newspaper Ind.	X
	X	NTIS	X
V. SCIENCE		ASFA	X
Biology	X	BA/BIOSIS	X
Botany	X	CA	X
Chemistry		CLAIMS	X
Geology	X	GEOARCHIVE	X
Mathematics		MGA	X
Meteorology		MRIS	X
Marine Science		Oceanic Abstracts	X
Physics		RAPRA Abstracts	X
Physical Science Educ.	X	SCISEARCH	X
Home Economics (¼ of total)		SPIN	
		WAA	
		World Textiles	X
VI. ENGINEERING		Compendex	X
Chemical Engr.		Energyline	X
Civil Engr.		ISMEC	X
Mechanical Engr.	X	INSPEC	X
Electrical Engr.		METADEX	X
Industrial Engr.		Surface Coatings	X
Systems Engr.			
Materials Engr.			
Aeronautics			
General & Management Programs			
Computer Science			

Divisions	1975	Data Bases	1980
VII. SOCIAL SCIENCE		American Hist. & Life	X
Afro-American Studies		Historical Abstracts	X
Asian Studies	X	ICPSR	X
Anthropology		NCCAN	X
Geography		Population Biblio.	X
History	X	SocSciSearch	X
Jewish Studies		Sociology Abstracts	X
Mexican-American Studies	X	U.S. Census	X
Military History		APTIC	X
Jewish Studies		Environline	X
Political Science		EPS (Envirobib)	X
American Studies		Pollution Abstracts	X
Environmental Studies			
Economics			
Social Science			
Sociology			
Speech Communication			
Urban Planning			
Social Work			
Women's Studies			
* * * * * * * * * * * * * * * * * * * *			
VIII. HUMANITIES			
Art		Art (Modern)	X
Comparative Literature		LLAB	X
English		MLA Biblio.	X
Foreign Language		PAIS	X
Liberal Studies		Philosopher's Index	X
Linguistics		RILM	X
Journalism/Communication			
Music			
Music Education			
Philosophy			
Religious Studies			
Theater Arts/Drama			
* * * * * * * * * * * * * * * * * * * *			
IX. EDUCATION			
Counselor/Counseling Educ.		AIM/ARM	X
Counselors		ECER	X
Education	X	ERIC	X
Instructional Technology		LISA	X
Industrial Arts		NICEM	X
Library Science/Information Science		NIMIS	X
Librarians			
Vocational Education			
* * * * * * * * * * * * * * * * * * * *			

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